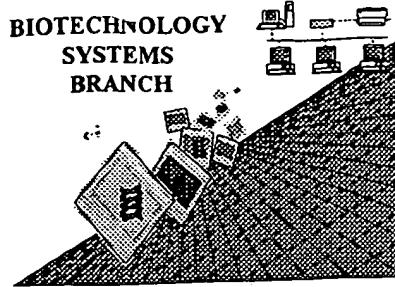


RAW SEQUENCE LISTING

ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/744,100

Source: Puf/09

Date Processed by STIC: 7/5/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED
SUGGESTED CORRECTION
SERIAL NUMBER: 09/744,100

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleic The number/text at the end of each line "wrapped" down to the next line. This may occur if your file Wrapped Aminos was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences (OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences (NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213> Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

PCT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/744,100

DATE: 07/05/2001

TIME: 15:42:39

Input Set : A:\BB1174.txt

Output Set: N:\CRF3\07032001\I744100.raw

3 <110> APPLICANT: Cahoon, Rebecca E.
 4 Gutteridge, Steven
 5 Lee, Jian Ming
 6 Rafalski, Antoni
 8 <120> TITLE OF INVENTION: Ornithine Biosynthesis Enzymes
 10 <130> FILE REFERENCE: BB-1174
 CK 12 <140> CURRENT APPLICATION NUMBER: US/09/744,100
 CK 13 <141> CURRENT FILING DATE: 2001-01-18
 15 <150> PRIOR APPLICATION NUMBER: 60/093,209
 W--> 16 <151> PRIOR FILING DATE: July 17, 1998 1998-07-17 *Conver their date format*
 18 <160> NUMBER OF SEQ ID NOS: 12
 20 <170> SOFTWARE: Microsoft Office 97

Does Not Comply
 Corrected Diskette Needed

ERRORED SEQUENCES

122 <210> SEQ ID NO: 3
 123 <211> LENGTH: 1186
 124 <212> TYPE: DNA
 125 <213> ORGANISM: Oryza sativa
 127 <400> SEQUENCE: 3
 128 gcacgagtac agcgcgcgg ccggccat gtcctcg aagccccacc ttccttc 60
 129 ctcttcctc ccatcacgc gggtgtctag cccgcgtccg gttcccaacc acgaaagcc 120
 130 catgcgcgcc tctccgc ctcgacgtcg ctcgtctc gccgtcacat ccggcgccc 180
 131 gccggctgtc tcgtccggcagg aggccggcgc ggcgtgagc cgcgtggatg tgctctcaga 240
 132 ggccgtccccc ttcatccagc gcttcaaggga aagaccgtg gtggtaagt acggccgcgc 300
 133 ggccatgaag tcgcccggc tccaggcttc agtgcattccg gacctggtcc tcctctcg 360
 134 cgtccgcctc caccgggtgc tcgtccacgg cggccggccc gagatcaact cctggctgt 420
 135 cccgcgtccgc gtcgagccgc atttccggaa cggccctccgc gtcactgacg cgctcaacat 480
 136 ggaggctgtc gagatggtgc tcgtccgc aa ggtcaacaaa gaactccctt ccctcatcaa 540
 137 actccgggg gggagccgc taagtctcg ttggaggaa gtcgcctcc tcaacgagcg 600
 E--> 138 gcccctcccg aaaaagg gccttcgggt tgcggccgg gtctggccgc tggacgccac 660 → See item 9 in Error summary sheet
 139 cgtccctccac ccaatcatcg ctcgggtca catccggc atccactg tggccgc 720
 140 cgagaccggg caggcataca acatcaacgc tgacacggc gccggcgaga tcggccgc 780
 141 ggtccggcgc gagaagctgt tgctgtcac agatgtgtc ggaattctgg ccgaccgtaa 840
 142 tgacccggg agtctgtc aagagatcga cattgtggg gtggccaga tggtgccga 900
 143 cgggcaggta gtcggggta tgataccgaa ggtgaatgc tgcgtcgatcc cccctcgaca 960
 144 gggcgtgcac actgcaagca tcatcgatgg gcgtgtcccg cactcgatgc tgctcgat 1020
 145 tctcacagat gaggcactg gcaactatgt cactggctga ggtgattcat cccgtcg 1080
 146 tattctccgg tgcctctt ctcatactgt aatgtatattt gcatttgata tgcctcatga 1140
 147 ttgcaataag aattgttattc ctcaaaaaaaa aaaaaaaaaaaaaaa 1186

Use of n and/or Xaa has been detected in the Sequence Listing.

Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/744,100

DATE: 07/05/2001

TIME: 15:42:40

Input Set : A:\BB1174.txt

Output Set: N:\CRF3\07032001\I744100.raw

L:12 M:270 C: Current Application Number differs, Replaced Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:16 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:138 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:3
L:195 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:4
L:195 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:343 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:7
L:343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:344 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:7
L:344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:395 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:8
L:395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:398 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:8
L:398 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:551 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:551 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:554 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:554 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:554 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:557 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:557 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:560 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:560 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:563 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:563 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:566 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:566 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:566 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:569 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:569 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:569 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:572 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:572 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:572 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:575 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:575 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:578 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:578 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:578 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:581 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:581 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:581 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:584 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/744,100

DATE: 07/05/2001
TIME: 15:42:40

Input Set : A:\BB1174.txt
Output Set: N:\CRF3\07032001\I744100.raw

L:584 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:587 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:587 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:590 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:590 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:593 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:593 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:593 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:596 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:596 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:596 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:599 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:599 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:599 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:602 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:602 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:605 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:605 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:605 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:608 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:608 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:608 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:614 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:614 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:614 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12